

Dermatological Emergencies in the Medical Emergency Department of the Sylvanus Olympio University Hospital of Lomé (Togo): Study of 116 Cases

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Abstract Objectives: The aim of this study was to describe the epidemiological and clinical profile of dermatological emergencies admitted to the medical emergency department of the Sylvanus Olympio University Hospital (SO) in Lomé. **Methodology:** This is a retrospective study conducted from January 2014 to December 2016 at the medical emergency department of the Sylvanus Olympio University Hospital of Lomé. **Results:** During the study period, 24225 patients were seen at the medical emergency department of the Sylvanus Olympio University Hospital, of which 116 dermatological emergencies, i.e. a frequency of 0.47%. The mean age of the patients was 38.43 years (extremes: 16 and 85 years) and the sex ratio (M/F) was 0.68. The dermatological emergencies were: Leg Erysipelas (N=53; 45.68%), Chickenpox (N=21; 18.10%), herpes zoster (N=13; 11.2%), Stevens-Johnson and Lyell syndromes SJS/TEN (N=22; 18.95%), and Angioedema or Quincke's edema (N=7; 6.03%). **Conclusion:** This study showed that skin pathologies were extremely rare in the medical emergencies of the Sylvanus Olympio University Hospital, and dominated by infectious causes.

Keywords Dermatological emergencies, Lomé (Togo)

1. Introduction

Dermatological emergency is defined as any acute or serious pathology of the skin requiring treatment within 48 hours [1]. It is frequently the cause of consultations with general practitioners and hospital emergency medicine units [2]. It is a situation that should not be neglected because it can be life-threatening for the patient who suffers from it [2]. But no study, to our knowledge, has been devoted to this subject in the medical emergencies of the Sylvanus Olympio University Hospital in Lomé. The aim of this work was to describe the epidemiological and clinical profile of dermatological emergencies admitted to the medical emergency department of the Sylvanus Olympio University Hospital in Lomé (Togo).

2. Patients and Methods

This is a retrospective study carried out in the medical emergency department of the Sylvanus Olympio University Hospital Lomé. It was extended over a period of three years from January 1, 2014 to December 31, 2016. Were included in this study, all patients aged 16 and over admitted to the department for a dermatological emergency. The diagnosis of dermatological emergency was made on the basis of an acute or severe skin pathology requiring treatment within 48 hours [1]. Urticaria has been evoked in the presence of an irregular erythematous eruption in patches of variable size, of sudden onset, itchy, and disseminated over the whole body and Quincke's edema if the Urticaria was associated with areas of edema extending to subcutaneous and / or submucosal tissues (eyelids, lip, and genitals, back of the hand). Leg Erysipelas has been evoked in the presence of a large acute painful and febrile leg with an erythematous placard, sometimes associated with evidence of a portal of entry and a sensitive satellite adenopathy. Lyell's syndrome or Toxic Epidermal Necrolysis (TEN) was retained in the presence of a bullous toxidermia with a cutaneous detachment exceeding 30% of the body surface and the Stevens-Johnson Syndrome (SJS) when the extent does not exceed 10% of the surface body. Chickenpox has been evoked in the presence of a febrile vesicular eruption in

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variable numbers, of different ages, itchy, disseminated over the whole body and in particular the scalp, the face, the trunk with notion of contagion and Herpes Zoster in the presence of a vesicular eruption on erythematous base limited to a cutaneous territory of a peripheral sensory nerve or a group of posterior ganglions with neuralgic pain. The etiological research of the drug in question in case of immuno-allergic dermatosis was based essentially on questioning, using the French pharmacovigilance method [3].

3. Results

During this study period, 24225 patients were seen in the department. Among them, 116 presented a dermatological emergency, i.e. a frequency of 0.47%. The mean age of the patients was 38.43 years (extremes: 16 and 85 years) and the sex ratio (M / F) was 0.68. The 20 to 39 age group was the most represented (52.58%).

The emergencies of infectious origin were: leg Erysipelas (N = 53; 45.68%), Chickenpox (N = 21; 18.10%) and Herpes Zoster (N = 13; 11.2%). Leg Erysipelas was unilateral in 51 patients. Painful swelling of the leg was noted in all patients, sensitive satellite inguinal adenopathy in 45 patients, erythematous placard in 38 patients, blisters in 15 patients and a portal of entry was identified in 32 patients. These were inter-toe intertrigos (N = 24) and neglected traumatic wounds (N = 8). The predisposing conditions found in the patients were Diabetes (N = 21) and obesity (N = 17). Only one case of Erysipelas was complicated by septic shock. The 21 cases of Chickenpox were marked by a febrile vesicular eruption with the notion of contagion in 18 of them. Compared to Herpes Zoster, the thoracic (intercostal) localization was the most observed (N = 8), followed by the ophthalmic (N = 3) and auricular (N = 2) form. Ten of the 13 patients were HIV-infected.

Emergencies of immuno-allergic origin were: Toxidermia (N = 22) represented by SJS (N = 14) and TEN (N = 8) and Quincke's edema (N = 7). SJS / TEN were induced by anti-infective sulfonamides (N = 11), Nevirapine (N = 3), a non-steroidal anti-inflammatory drug (Piroxicam) (N = 1). No drug identification in 7 patients. Finally, Quincke's edema was characterized by edema of the lips and face in all of the patients.

4. Discussion

The prevalence of dermatological emergencies in this study was 0.47% compared to 17% in Andrianarison's study in 2017 in Madagascar [1]. Indeed, dermatological emergencies are relatively frequent and represent a non-negligible part of medical practice [2]. But this study showed low rate could be explained by this study setting. It is a broader setting receiving all medical pathologies contrary to other works which took place in dermatology [1,2,4]. On the other hand, in this study series, these emergencies

concerned a young population predominantly female as in the Malagasy series [1]. Emergencies of infectious origin were predominant in this study, with leg Erysipelas as the leader, contrary to Malagasy data which estimates that they occupy the second place after immuno-allergic emergencies [1]. Leg Erysipelas is a frequent infection [5] and remains the most common clinical form of Erysipelas observed worldwide according to most authors [1,2,4-7]. This predominance of Erysipelas in the lower limb could be explained by a modification of the risk factors with an increasing progression of obesity, Diabetes and smoking, thus arteritis and the risk of chronic wounds which result from it, as well as the frequency of doors (intertrigos inter toe, Onychomycosis, wounds secondary to barefoot walking with defective hygiene...) possible at this level [6-8]. Indeed, the predisposing conditions found in this study patients were Diabetes and obesity, and the entry points were intertrigos and superinfected wounds. The clinical signs found in this study were classic. However their frequency varied from one study to another dominated by a large painful leg, an erythematous placard and fever [6,7,9]. The frequency of leg Erysipelas in this study can also be explained by the existence of another risk factor, which is voluntary depigmentation as identified in a multicenter study by Pitché *et al.* in 2015 [10].

Chickenpox (varicella) and Shingles (Herpes zoster) were the other skin infections observed in this study. Chickenpox is usually a mild disease. However, complications of variable or even fatal severity can be observed such as bacterial, neurological, pleuropulmonary, hepatic, hematological, cardiac and articular infectious complications, especially in immunocompromised subjects. But no complications were observed in the patients. Herpes zoster is responsible for a cutaneous eruption, classically metameric, the location of which varies according to the works which confronts the patients, especially elderly ones, with acute pain and complications, of which the latest distressing and disabling is Post-Herpetic Neuralgia [11]. Thoracic location was predominant in this series.

Regarding immuno-allergic causes in this study series, Toxidermia was in the majority and clinically dominated by SJS/TEN. SJS/TEN are acute and very severe dermatological diseases caused by "drug allergy" [12]. The incriminated drugs in this study are similar to those reported in the literature, dominated by anti-infective Sulphonamides [12,13]. But sometimes, no suspect drug is identified [13]. This was the case for seven of study sample in whom no drug exposure was found. According to the literature, some of these cases of idiopathic appearance are due to infections, in particular atypical pneumonia caused by *Mycoplasma pneumoniae* [13].

Quincke's oedema was the second immuno-allergic cause in this series. Angioedema is a particular form of Urticaria that is much more serious [2]. But the most common causes are drug or food related [14,15].

5. Conclusions

Dermatological emergencies were not very frequent in the medical emergencies of the Sylvanus Olympio University Hospital of Lomé but not negligible. Infectious causes were at the forefront, particularly leg Erysipelas. The diagnosis and care must not be delayed because the vital prognosis can be engaged.

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